

PECHKURENKO, V.L.

Characteristics of the structure of the scale cover in West
African Sardinella aurita Val. Vop. iqt. 3 no. 2:131-143 '63.
(MIRA 19:2)

1. Kaliningradskiy tekhnicheskiy institut rybnoy promyshlennosti
i khozyaystva.
(Atlantic Ocean--Sardines) (Scales (Fishes))

PECHKUROV, A.F.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. "Sovetskaya Kultura, Moscow, No. 27-40, on Feb. 1-3 Apr. 1953

Name	Title of Work	Instituted by
Pechkurov, A.F.	"Stability of the River-bed of Regulated Rivers"	Institute of Soil Improvement and Swamp Economy, Academy of Sciences Belorussian SSR

NO: W-30604, 7 July 1954

PECHKUROV, A. F., kandidat sel'skokhozyaystvennykh nauk.

Using river defense works in the regulation of rivers. Trudy
Inst.mel.,vod.khoz.AN BSSR 6:21-59 '55. (MLRA 9:10)

(Rivers--Regulation) (Hydraulic engineering)

PECHKUROV, A.F., kandidat sel'skokhozyaystvennykh nauk.

Mineralization of peat. Trudy Inst.mel.,vod.i bol.khoz.AN BSSR
6:250-256 '55. (MLRA 9:10)

(Peat)

PERCHKUROV, A.P., kandidat sel'skokhozyaystvennykh nauk.

Packing of peat under pressure. Trudy Inst.mel., vod.i bol.khoz.
AN BSSR 7:3-27 '56. (MLRA 10:5)
(Peat)

ZUBETS, V.M., ott. red.; LASHKEVICH, G.I., red.; PECHKUROV, A.F.,
red.; IVITSKIY, A.I., red.; BEL'SKIY, B.B., red.; LUDIK,
K.P., red.; MISHANOVA, Ye.A., red.; TIMOSHCHUK, R.S.,
tekhn. red.

[Draining and utilizing peat-bog soils] Osushenie i ispol'-
zovanie torfiano-bolotnykh pochv. Minak, Gos. Izd-vo sel'-
khoz.lit-ry BSSR, 1963. 316 p. (MIRA 16:12)
(Peat soils) (Drainage)

PECHKUROV, A. F. Doc Tech Sci -- "Stability of river beds and drainage system
canals of the BSSR." Mos, 1960 (Mos Order of Lenin Agr Acad im K.A. Timiryazev).
(KL, 1-61, 190)

-155-

PECHKUROV, A.P., kand.sel'skokhoz.nauk, glavnnyy red.; ASKOCHIENSKIY,
E.A., red.; SHAROV, I.A., akademik, red.; SKOROPANOV, S.O.,
red.; RUSINOV, F.I., red.; BOROVIKOVA, R.P., red.; SOKOLOVICH,
A.I., tekhnred.

[Drainage of bog and swampy soils of the non-Chernozem zone of
the European U.S.S.R.; materials of the joint session, July 8-11,
1958] Osushenie bolotnykh i zabolochennykh pochv nechernozemnoi
zony Evropeiskoi chasti SSSR; materialy ob'edinennoi sessii
8-11 iulius 1958 g. Minsk, Izd-vo ASKhN BSSR, 1960. 364 p.
(MIRA 14:4)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
V.I.Lenina. 2. Vsesoyuznaya akademiya sel'skokhozyaystvennykh
nauk imeni V.I.Lenina (for Sharov).
(Drainage)

SKOROPANOV, S.G., glavnnyy red.; PECHKUROY, A.P., kand.sel'skokhoz.nauk, red.; KHOT'KO, A.I., starshiy nauchnyy sotrudnik; red.; IVITSKIY, A.I., doktor tekhn.nauk, red.; BEL'SKIY, B.B., kand.sel'skokhoz.nauk, red.; PROKOPENKO, D.P., tekhn.red.

[Principal results of research carried out by the White Russian Scientific Research Institute of Land Reclamation and Water Management in 1957] Osnovnye rezul'taty nauchno-issledovatel'skoi raboty instituta za 1957 god. Minsk, 1958. 280 p.

(MIRA 14:2)

1. Minsk. Belarusskiy nauchno-issledovatel'skiy vodnaiy nauchnyy institut melioratsii vodnaiy i gospodarki. 2. Chlen-korrespondent AN BSSR (for Skoropanov).
(White Russia--Drainage research)
(White Russia--Agricultural research)

SKOROPANOV, S.G., glavnnyy red.; PECHKUROV, A.F., kand.sel'skokhoz.nauk, red.; KHOT'KO, A.I., kand.sel'skokhoz.nauk, red.; IVITSKIY, A.I., doktor tekhn.nauk, red.; BKL'SKIY, B.B., kand.sel'skokhoz.nauk, red.; MARIKS, L., red.izd-va; VOLOKHANOVICH, I., tekhn.red.

[Achievements of the science of land reclamation in the White Russian S.S.R.; works of the institute dedicated to the 40th anniversary of the White Russian S.S.R.] Dostizheniya meliorativnoi nauki v BSSR; institut k 40-letiu BSSR. Minsk, Akad. nauk BSSR, 1958. 193 p. (MIRA 13:6)

1. Minsk, Belaruski naukova-dasledchy instytut melioratsyi i vodnoi haspadarki. 2. Chlen-korrespondent AN BSSR (for Skoropanov).

(White Russia--Peat soils)

J

Country : USSR
Category: Soil Science. Tillage. Reclamation. Erosion.

Abs Jour: RZhBiol., No 18, 1958, No 82150

Author : Pechlursky, A. F.; Amnul, Kh. I.
Inst : Sc. Res. Inst. of Melioration and Water Economy.
Title : Capillary Water Permeability of Peat Soils.

Orig Pub: V.sb.: Osnovnyye rezul'taty nauchno-issled. raboty
Belorussk. n.-i. in-ta melior. i vodn. kh.-va za 1956 g
Minsk, AN BSSR, 1957, 71-92.

Abstract: Investigations were conducted on monolithic sections
26 x 50 x 70 cm, taken on the Drichinskiy marshland
tract (sedge peat), and sections 27 x 50 x 100 from
the bottomland of the Zakovanka River (woody-scirpus
peat). The method of investigation is described.

Card : 1/3

J-39

SOV/124-57-9-10925

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 155 (USSR)

AUTHOR: Pechkurov, A. F.

TITLE: Compaction of Peat Under Load (Uplotneniye torfa pod nagruzkoj)

PERIODICAL: Tr. Belorussk. n.-i. in-ta melior. i vodn. kh-va, 1956, Vol 7,
pp 3-27

ABSTRACT: Bibliographic entry

Card 1/1

Pechkurov, A.F.

1-3

USSR/Soil Science. Physical and Chemical Properties of Soils.

Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22457

Author : Pechkurov, A.F.

Inst : Moisture Regulation of Peat Soils by Intra Soil Evaporation.

Title : Moisture Regulation of Peat Soils by Intra Soil Evaporation.

Orig Pub: Tr. konferentsii po melior. i osvoeniyu bolotnikh i zabolochennikh pochv, 1955, Minsk, AN BSSR, 1956, 62-103

Abstract: Observations at the Minsk and Kirov bog stations of the Belorussian SSR established the fact that the basic agricultural cultivations, except grasses, do not manifest a crop increase on cultivated peat soils due to additional intra soil watering even in years of drought. These soils, because of a great moisture capacity, absorbing the atmospheric precipitation, retain these water reserves from surface and soil flow, which helps obtain high yield and stable crops of agricultural cultivations. Based on laboratory experiments, the largest amount

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Card : 1/2

PÖCHLER, E.

Quantitative determination of potassium and sodium in the presence of each other by an ion-changing resin. p. 127.

MÁCYAR KEMIKUSOK LIN. JA. (Magyar Kemikusok Egyesülete) Budapest, Hungary
Vol. 14, no. 2/3, Feb./Mar. 1959.

Monthly list of East European Accessions (EEA), IC, Vol. 4, No. 3,
August 1959.
Uncla.

CIRSTOCEA, I., Dr.; HUTTMANN, A., dr.; PECURARIU, O., dr.; RADULET, Fl., dr.

Dermo-osteopathologic syndrome in bronchopulmonary neoplasms.
Med. int., Bucur. 9 no.1:137-141 Jan 57.

(LUNG NEOPLASMS, manifestations
pseudo-rheum. osteopathology resembling Marie's
dis., value in early diag.)
(OSTEOPATHY, HYPERTROPHIC PULMONARY, etiol. & pathogen.
cancer of lungs, causing incomplete synd. of Marie's
dis.)

PECHKUROV, A. F.

475

SKOROPANOV, S. G., PECHKUROV, A. F. i BEL'SKIY, B. B.
Osusheniye i sel'skokhozyaystvennoye osuoyeniye bolot v
Belorussii. M. Sel'khozgiz. 1954. 133 s sill. 20sm.
5.000 ekz. lr. 80k.--Na obl. av. ne ukazany.--
54-544357 p 631.615(47.60)

SO: Knizhnaya Letopis, Vol. 1, 1955

PECHMANN, M.

- Project, Collection of Czechoslovak Chemical Communications, Vol. 27,
No. 4, April 1962 (continued)
15. "The Occurrence of Positive Ferroics with Electrochemical Methods,"
J. TURK, Slovenské Technické Vedecké Arhive, Bratislava; pp. 916-919.
 16. "The Theory of the Boundary Layer of a Finite Adherent Crystal,"
E. PAVLÍČEK, Institute of Inorganic Chemistry at the Czechoslovak Acad-
emy of Sciences, Prague; pp. 920-921.
 17. "A Contribution to the Problem of the Electron of Monopoles on a
Czechoslovak Academy of Sciences; pp. 922-930.
 18. "The Fluctuation of Conductivity. Part II. A contribution to the theory
of the Fluctuation of Conductivity in Electrolytic Solutions," J. ŠURÝ
and B. POLÁK, Institute of Geochemistry and Mineralogy New Materials
of the Czechoslovak Academy of Sciences, Prague; pp. 931-937.
 19. "The Kinetics of Hydrolysis on Semiconductors. Part VI. The Perio-
dic Table - Direction, Relation System, and the General Rule of
Reactions by Periodic Properties," Z. RUDOLF, Institute of Physics, Prague;
pp. 938-950.
 20. "The Kinetics of Hydrolysis on Semiconductors. Part VII. Selection of
Parameters by Numerical Techniques," L. KOMÁRKOVÁ, Institute of Physics
of the Czechoslovak Academy of Sciences, Prague; pp. 951-959.
 21. "Halogen Compounds of Ruthenium with Pyridine and its Derivatives," K. KOM-
PLA, Part III. Structure and Preparation and Preparation of Com-
pounds; J. ŠAFER, Research Institute for Macromolecular Chemistry,
Prague; pp. 960-961.
 22. "Automatic Paper Electrophoresis," J. ŠAFER, M. RUDOLFOVÁ and J.
ŠAFER, Development Institute of Organic Chemistry and
Biochemistry, Czechoslovak Academy of Sciences, Prague; pp.
962-970 (English article).
 23. "Organic-Silicon Compounds. Part XXI: The Kinetics of the Direct
Polymerization of Silanes in Pyridine," J. JAROLÍK, M. RUDOLFOVÁ and
J. ŠAFER, Institute for the Theoretical Basis of Chemical Reactions
and Catalysis, Czechoslovak Academy of Sciences, Prague; pp. 976-978.
 24. "On the Properties of Sulphide Catalysts. Part IV. The Preparation
of Alum," O. LAMÉ and O. VITĚZSCHÉK, Institute of Applied
Physics and Mathematics at the Academy School of Chemistry,
Prague;

— 16 —

37166
z/032/62/012/005/003/004
E073/E535

11800

AUTHORS: Pechman, V., Engineer and Šmid, J.
TITLE: Malleable alitized layer and possibilities of its practical utilization

PERIODICAL: Strojírenství, v.12, no.5, 1962, 369-373

TEXT: Existing methods of surface protection of steel against scale formation are not fully satisfactory. For instance, parts heated in neutral atmospheres are protected only in the furnace and as soon as they are removed, for instance for forming, they oxidize immediately and scale forms. Alitizing provides a protection at elevated temperatures; however, due to the brittleness of the alitized layer, further forming is difficult. In their experiments, the authors used primarily an alitizing mixture containing 49% Al-Fe alloy (20-25% Fe), 49% kaolin powder, 2% NH_4Cl . The grain size of the mixture should be about 0.5 mm, the parts to be alitized should be perfectly clean and degreased. The alitizing process was carried out in the temperature range 650 to 1100°C for durations of one to twelve hours. The speed of cooling the alitizing

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Malleable alitized layer ...

Z/032/62/012/005/003/004
E073/E535

vessels has no influence on the result. In the experiments a wide range of steels with varying carbon contents, as well as alloy steels, were used. The depth of the alitized layer was determined microscopically. Metallographic analysis showed that, depending on the temperature, the alitized layer differed in character; the depth of the alitized layer was influenced by the alitizing temperature as well as by the chemical composition of the steel, the depth of the layer decreased with increasing carbon content. Alitizing experiments were successful for all steels except tool steels. The plasticity of the alitized layers was tested both by static pressure in a press and by dynamic pressure applied by a forging hammer. In the tests 25 mm diameter cylinders and 10 x 10 mm prisms were subjected to reductions of "between 80 and 120%" in the temperature range 20 to 1100°C. Only specimens alitized at the temperatures 850 and 900°C were investigated in detail since alitized layers formed at higher temperatures were excessively brittle at room temperature. The alitized layers improved very considerably the scale resistance at 650 and 750°C. The surface of alitized heat-

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Card 2/3

Malleable alitized layer ...

Z/032/62/012/005/003/004
E073/E535

treated specimens conserved its original character after heat treatment. After the laboratory tests, the experiments were continued under shop conditions on material used for forging turbine blades. After alitizing at 850°C for six hours the material was used in the normal production process. The alitized parts were entirely free of scale and conserved the characteristic lustre. After manufacture, the alitized turbine blades were put into a furnace at 600°C, held at that temperature for two hours, cooled in air and put back into the furnace. The total residence at this temperature was 150 hours. The same material in the non-alitized state was strongly affected by scale after only 80 hours of similar treatment. It is concluded that the alitizing method described provides a high protection against scaling and has very good plastic properties in the cold as well as in the hot states. There are 11 figures and 4 tables.

ASSOCIATION: LZ Pilsen

Card 5/3

von Pechmann, H.

von Pechmann, H. and Merk, P.

Action of Sulphurous Acid on Potassium Cyanide. Diazot. Hypodisulphonic acid.

Ber., V. 28, 1895, pp. 2374-2383

J. Chem. Soc., V. 70, p. 14

Hydrogen potassium cyanotitanedisulphonate, $\text{H}_2\text{O}_3 \cdot \text{CH}(\text{NH}_2) \cdot \text{SO}_3\text{K}$, is obtained by dissolving 100 grams of 99 per cent potassium cyanide in a solution of hydrogen potassium sulphite, prepared by saturating a solution of 150 grams of caustic potash in 600 grams of water with sulphurous anhydrite; the acidic liquid is heated on the water bath, and becomes alkaline after 30-40 min. The solution is then carefully acidified with hydrochloric acid, and again warmed, addition of acid being repeated until the acidity is permanent, this being usually the case after 1½-2 hrs. On adding concentrated hydrochloric acid to the cold liquid, about 200-250 grams of the hydrogen potassium salt crystallizes out. It is a snowy powder, which dissolves but sparingly in water, yielding an acid solution; boiling water resolves it into the components.

PECHMANN, Josef, Primar MUDr

Recurrent perforation of peptic ulcer. Cas.lek.cesk. 91 no.38:
1083-1086 19 Sept 52.

1. Z chirurgického oddělení OUNZ v Šumperku.
(PEPTIC ULCER, perforation,
recur.)

FED. H. MANN, M.D.

Excerpta Medica Sec 9 Surgery Vol. 9/6 June 55

3399. PECHMANN J. Chir. Odd. OÚNZ, Sušice. *Střelná poranění břišní. Gun -
~~shot injuries~~ of the abdomen ROZHL. CHIR. 1954, 33/2-3 (109-114)
A report on 19 cases. Only timely operation and complex therapy may save the pa-
tient. Shock should first be treated. Operation is best carried out under ether
anaesthesia and with a normal medial laparotomy incision. The shot wound is dealt
with only after the operation. Flushing of the abdominal cavity is not employed. The
various organs are treated according to the nature of the wound. Lesions of the
large intestine are treated by suturing or, if necessary, colostomy.

Wondrák - Litoměřice

44867

11200

S/081/62/000/024/035/073
B144/B186

AUTHORS: Hrdina, J., Pechman, M., Skoda, J.

TITLE: Automatic paper electrophoresis

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 271, abstract
24E101 (Collect Czechosl. Communs, v. 27, no. 4, 1962,
969 - 973 [Eng.; summary in Russ.])

TEXT: An apparatus for the electrophoretic separation of various substances on paper is described, which can be used for analytic and preparative purposes. The apparatus, which is fully automatic, controls the duration of electrophoresis, the extraction of the ends of the electrophoretic diagram paper from the electrolyte and their drying, the drying time of all electrophoresis patterns with cold or hot air and the disconnection of the apparatus. Its construction permits safe working with radioactive substances. Methods for the improvement of electrophoretic apparatus are discussed, particularly, for a better utilization of the Joule heat formed in the electrophoretic pattern. [Abstracter's note: Complete translation.]

Card 1/1

DOVORSKY, Jan, inz.; NOVAK, Vladimir, inz.; PECHMANN, Milos, inz.; VINTERA,
Jaroslav, MUDr.

A vector cardiograph. Slaboproudý obzor 23 no.2:97-101 F '62.

1. Laborator pro detskou pneumologii fakulty všeobecného lekarství
Karlových universit, Praha (for Vintera). 2. Fyzikální ústav Karlových
universit (for Dvorský). 3. Ústav pro hydrodynamiku, Československé
ske akademie ved (for Novák). 4. Vývojové dílny Československé
akademie ved (for Pechmann).

PECHMANN, V.

Building of apartment houses in Bratislava. Stavivo 41 no.11;
Supplement: Staviva a stavby: insert N°63.

ZENKOV, Leonid Filippovich; PECNIKOV, A.I., retsenzent;
BUJKO, A.A., retsenzent

[Establishing technical standards for strip mining
operations] Tekhnicheskoe normirovanie na otkrytykh
gornykh rabotakh. Moskva, Nedra, 1964. 239 p.
(MIRA 18:6)

Pechatnoye izd.

ROSHCHIN, Sergey Konstantinovich; PICHNIKOV, A.M., otvetstvennyy red.;
SHAPIRO, V.Ya., red.izd-va; KRASNAYA, A.K., tekhn.red.

[Socialist economic structure of the Mongolian People's Republic]
Sotsialisticheskii uklad v ekonomike Mongol'skoi Nароиной Respubliki.
Moskva, Izd-vo vostochnoi lit-ry, 1958. 156 p. (MIRA 11:3)
(Mongolia--Economic conditions)

PECHNIKOV A.M.

AVRAAMOVA, A.A.; ALANPIYEV, P.M.; BADIR'YAN, G.G.; BORODIN, I.A.; VASYUTIN,
V.F.; GUHER, A.A.; GURARI, Ye.L.; DANILOV, A.D.; DERBENYANKO, P.A.;
YAKSUKOV, M.P.; KOLOSKOV, P.I.; LAPTEV, I.D.; LEONT'YEV, N.F.; PECHNI-
KOV, A.M.; PROKHOROV, A.I.; KUDENKO, N.A.; CHERDANTSEV, G.N.; YAKIMOV, A.T.

P.V.Pogorel'skii; Obituary. Izv.AN SSSR. Ser.geog. no.3:94-95 My-Je
'55. (MLRA 8:9)

(Pogorel'skii, P.V., 1899-1955)

Tekhnika, S.
PARCHEVSKIY, Vladislav [Parczewski, Wladyselew]; DANILOV, G. [translator];
PECHNIKOV, G. [translator]; MUSAYELYAN, Sh. red.; ORIOOR'YEVA, A.I.,
red.; TSIGEL'MAN, L.T., tekhn.red.

[Glider pilots on wave movements in the atmosphere. Translated from
the Polish]. Planeristu o volnovykh dvizheniakh v atmosfere.
Perevod s pol'skogo G.Danilova i G.Pechnikova pod red. Sh.Musaelyana,
Moskva, Izd-vo DOSAAF, 1957. 57 p. (MIRA 11:3)
(Gliding and soaring)

ACC NR: AR6027505

SOURCE CODE: UR/0137/66/000/004/I020/I020

AUTHOR: Parshin, A. M.; Gol'dshteyn, L. Ya.; Pechnikov, I. I.; Leonova, N. I.

TITLE: Strengthening of Kh18N22V2T2 steel after aging at 600-750°C

SOURCE: Ref. zh. Metallurgiya, Abs. 4I132

REF SOURCE: Metallovedeniye i term. obrabotka metallov, no. 12, 1965, 30-33

TOPIC TAGS: high strength steel, austenite steel, metal aging, stress relaxation / Kh18N22V2T2 steel

TRANSLATION: Sheets of Kh18N22V2T2 steel were aged isothermally at 500-950°C for periods up to 5000 hr, after austenitizing at 1200°C with subsequent water quenching. The steel samples were tested in tension and impact bending. Microstructures were analyzed by light and electron microscopes as well as by x-rays. Strengthening occurred only after aging at 600-700°C. Thus, after aging for 1 hr at 650°C, σ_b was increased to 16 kg/mm². In the course of subsequent aging for periods of 500 hr, σ_b increased to 21 kg/mm². After aging for 5000 hr at 750°C, intensive softening occurred in the steel. The strengthening of the steel at 600-750°C was explained by elastic distortions of the austenitic lattice in the α -Ni₃Ti pre-precipitation zones and by the resistance of the steel to stress relaxation under these conditions. Softening during prolonged aging

Cord 1/2

UDC: 669.15'26'24'27'295.017.3:621.785.78

ACC NR: AR6027505

was caused by stress relaxation during the formation and separation of the α -Ni₃Ti phase, as well as by its coagulation. I. Tulupova.

SUB CODE: 11,13

Card 2/2

PECHNIKOV, P.P., kand.veterinar.nauk

Concentration of hydrogen ions in the sperm of stallions. Trudy VNIIK
no.17:123-132 '49. (MIRA 16:3)
(Semen) (Stallions) (Hydrogen-ion concentration)

PARSHIN, A.M.; KOLOSOV, I.Ye.; MARINOV, T.K.; PECHNIKOV, I.I.

Curvature of stress-rupture strength curves. Fiz. met. i metalloved.
14 no.2:244-251 Ag '62. (MIRA 15:12)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.
(Strains and stresses) (Curves)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7

PARSHIN, A.M.; GOL'DSHTEYN, L.Ya.; PECHNIKOV, I.I.; LEONOVA, N.I.

Hardening of Kh18N22B2T2 steel following aging at 600-750° C.
Metalloved. i. term. obr. met. no. 12:30-33 D '65.
(MIRA 18:12)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7"

ACCESSION NR: AP4010069

S/0129/64/000/001/0019/0023

AUTHOR: Lebedev, T. A.; Parshin, A. M.; Kolosov, I. Ye.; Pechnikov, I. I.

TITLE: Heat resistance of titanium-stabilized austenitic chrome-nickel steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1964, 19-23

TOPIC TAGS: steel plasticity, fine-grained steel, coarse-grained steel, X18H9T steel, austenitic steel, titanium-carbon ratio, arsenic, antimony, sulfur, phosphorus

ABSTRACT: An investigation of the durability and plasticity of X18H9T steel revealed that its coarse grain prolongs the durability in some cases, shortens it in others and leaves it unchanged in still others. It was also found that the durable stability and plasticity of the steel are to some extent determined by the titanium-carbon ratio ($\frac{Ti}{C}$) in the steel. A ratio of $\frac{Ti}{C} > 4 - 5$ tends to reduce the

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ACCESSION NR: AP4010069

durability and plasticity of coarse-grained steel. The durable plasticity of coarse-grained steel is considerably shorter than that of fine-grained steel. An increase in the titanium content of coarse-grained steel reduces its deformation capacity, but fine-grained steel, whether produced commercially or in laboratory, is not affected by excessive titanium. Such low-melting impurities as lead, tin, antimony and arsenic, even in small quantities, have an adverse effect on the heat-resisting properties of austenitic steel. Laboratory-produced steel is found to be more durable than commercial steel because it contains fewer impurities. The use of very fine-grained steel for durable products to be used at high temperatures is undesirable. Fine-grained steel becomes brittle at room temperature after prolonged aging at high temperatures. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 07Feb64

ENCL: 00

SUB CODE: ML, AP
Card 2/2

NO REF Sov: 011

OTHER: 001

LEBEDEV, T.A.; PARSHIN, A.M.; KOLOSOV, I.Ye.; PECHNIKOV, I.I.

Heat resistance of austenitic chromium-nickel steel stabilized
by titanium. Metalloved. i term. obr. met. no.1:19-23 Ja '64.
(MIRA 17:3)

S/126/62/014/002/008/018
E193/E483

AUTHORS: Parshin, A.M., Kolosov, I.Ye., Marinets, T.K.,
Pechnikov, I.I.

TITLE: Deflection points on the stress/time-to-rupture curves

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.2, 1962,
244-251

TEXT: When data on creep strength of an alloy are plotted in the $\log \sigma / \log \theta$ coordinates (where σ is the effective stress and θ time-to-rupture), the resultant curves often have a deflection point, the change of slope occurring usually at low values of θ not exceeding several hours. According to some workers, this effect (which should be taken into account when results of short-time tests are extrapolated to obtain the values of σ under conditions of prolonged loading) has some physical significance reflecting a change either in the mechanism of deformation, or in the structure of the material. To check this theory the present authors analysed the results of a large number of short-time creep tests conducted earlier by Parshin on austenitic, 1X18H9T (1Kh18N9T), and dispersion-hardening, EI696 (EI696), X18H22B2T2 (Kh18N22V2T2), steels at 650 to 950°C.

Card 1/3

Deflection points ...

S/126/62/014/002/008/018
E193/E483

ASSOCIATION: Leningradskiy politekhnicheskiy institut im.
M.I.Kalinina (Leningrad Polytechnical Institute
imeni M.I.Kalinin)

SUBMITTED: November 23, 1961

Card 3/3

(N) L 12089-66 ENT(n)/EWP(w)/EWA(d)/P/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JB
ACC NR: AP6000608 SOURCE CODE: UR/0129/65/000/012/0030/0033

AUTHOR: Parshin, A. M.; Gol'dshteyn, L. Ya.; Pechnikov, I. I.; Leonova, N. I.

ORG: none

TITLE: Hardening of Kh18N22V2V2 austenitic chromium nickel steel after aging at 600-750°C

SOURCE: Metallovedeniya i termicheskaya obrabotka metallov, no. 12, 1965, 30-33

TOPIC TAGS: austenitic steel, metal hardening, chromium steel, nickel steel, phase analysis/ Kh18N22V2T2 austenitic chromium-nickel steel

ABSTRACT: Austenitic Cr-Ni steels alloyed with 1.3-3% Ti are widely used; their high mechanical properties are achieved by short (10-20 hr) aging at 700-750°C following austenitization. Yet the mechanism of this hardening, as well as the microstructural transformations occurring in the steels considered, has not yet been adequately investigated. Hence, the authors investigated specimens of industrially manufactured Kh18N22V2T2 steel subjected to austenitization at 1200°C (for 1 hr) with subsequent water quenching followed by isothermal aging at 500-950°C for up to 5000 hr. These specimens were subjected to tensile and impact-bending tests at room temperature and their microstructure was examined by means of optical and electron microscopes as well as selective oxidation. Findings: impact strength decreases at temperatures at which tensile strength increases; resistance to impact loadings decreases with in-

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UDC: 621.783.74:669.14.016.89

* Error; Journal, States X18H228272

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2

creasing aging time; at 1200°C (1 hr, water quenching) the microstructure of the steel consists of austenite and primary carbonitrides of the Ti(C, N) type and there are no excess phases on grain boundaries and twins. Hardening of this steel is accomplished only after aging at 600-750°C. Depending on the time and temperature of aging, the following intermetallic phases may appear in Kh18N22V2T2 steel: a) phases β -Ni₃Ti with face-centered cubic lattice; b) phases α -Ni₃Ti with hexagonal tightly packed lattice; c) phases Fe₂Ti with hexagonal tightly packed lattice; d) C-phases of the Fe(Cr, N) type with β -uranium type lattice. A comparison of the changes occurring in the mechanical properties of Kh18N22V2T2 steel at room temperature with the changes in microstructure owing to aging indicates that the most intense hardening of the material, accompanied by a decrease in impact strength (and plasticity) occurs during the period when no changes as yet are detected in the steel's microstructure. Hence, hardening during this stage of aging is not associated with the segregation of a discrete β -Ni₃Ti phase and, instead, is caused by preparatory processes within the austenite grains (redistribution of Ti) preceding the segregation. The hardening of steel at 600-750°C may be attributed to elastic distortions of the austenite lattice in the pre-segregation zones of the β -Ni₃Ti phase and to the steel's inability for stress relaxation under these conditions. Softening with increasing time of aging (e.g. at 750°C) is conditioned by the stress relaxation occurring on the formation, segregation and coagulation of the β -Ni₃Ti phase. Thus, hardening is caused by preparatory processes within the grains of the solid solution, preceding the segregation of this phase, whereas softening, on the other hand, is caused by the segregation of

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the intermetallics. These findings also refute the contention of Sorokin et al. (Zavodskaya laboratoriya, 1959, no. 6) and Blok et al. (Zavodskaya laboratoriya, 1957, no. 8) that hardening is attributable to the formation of the intermetallics phase β -Ni₃Ti with face-centered cubic lattice. Orig. art. has: 5 figures

SUB CODE: 11, 13. SUBM DATE: none/ ORIG REV: 003/ OTH REV: 000

Card 3/8

BOLDYREV, I.V., polkovnik; PECHNIKOV, N.Ya., polkovnik

New regulations. Vest. Vozd. Fl. no.11:12-17 N '60. (MIRA 13:11)
(Russia--Army--Regulations) (Military discipline)

RECHNIKOV, I. I.

Chair: Valerii Iei

Dissertation: "Physicochemical Properties of Certain Fiducial Lipids of Viruses."
Moscow Zooveterinary Inst., 27 Nov 47.

SO: Vechernaya Moskva, Nov, 1947 (Project #172-6)

Республика, 1949.

24207 PECENIKOV, P. P. Kontsentratsiya volorodnykh ionov v sperme cheloveka. Trudy Vsesoyuz. Nauch.-issled. IN-TA kinevirostva, VIP. 17, 1949, s. 123-32.
Bibliogr: 6 Nazv.

SO: Letopis, No. 32, 1949.

PECHNIKOV, Ya.D., prof.

Role of neurogenic features in the pathogenesis and treatment of psoriasis. Kaz.med.zhur. no.4:79 Jl-Ag '62. (MIRA 15:8)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. Ya.D. Pechnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Denina.

(PSORIASIS)

PECHNIKOVA, M. I., Candidate of Med Sci (diss) -- "Rheumatism among children of Tomsk". Tomsk, 1959. 14 pp (Tomsk Med Inst, Chair of Hospital Pediatrics), 150 copies (KL, No 21, 1959, 120)

ABRAMSON, I.S., redaktor; SHELKOV, L.S.[translator]; TROFINOVA, V.A.,
[translator] GESSEN, L. redaktor; DRONOV, A.' tekhnicheskly
redaktor; PECHNIKOVA, N. tekhnicheskly redaktor.

[Modern cathode ray oscilloscope; a collection of articles]
Sovremenyyi katodnyi osciloskop; shornik statei. Moskva,
Izd-vo inostrannoi lit-ry. Pt. 1 [Installation and operation
of a cathode oscilloscope. Translated from the English]
Ustroistvo i rabota katodnogo oscilosografa. Per.s angliiskogo
L.S.Shelkova, i V.A. Trofimovo. Pod red. I.S.Abramsona. Izd-vo
2-e, ispr. i dop. 1951 241 p. (MLRA 8:10)
(Cathode ray tubes)

PECHNIKOVA, N.

KUROCHKIN, Grigoriy Danilovich; MANAYEVA, O., redaktor; POLYAKOVA, V.
redaktor; PECHNIKOVA, N., redaktor; GOLUBKOVA, O., tekhnicheskiy
redaktor

[On the banks of the Ulug-Khem; notes of a geologist] Na bere-
gakh Ulug-Khema; zapiski geologa. (Moskva) Izd-vo TsK VLKSM
"Molodaia gvardiia," 1955. 134 p. (MLRA 8:10)
(Yenisey Valley--Description and travel)

PECHNIKOVA, S. S.

USSR/Biology - Seeds, Sprouting
Chemistry - Gutta-Percha

21 Jul 50

"Study of the Sprouting of the Seeds of the Warty Spindle Tree (Beresklet Boradavchatyy),"
V. L. Ketovich, T. I. Smirnova, A. A. Bundel', S. S. Pechnikova, Inst of Biochem imeni
A. N. Bakh, Timber Inst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXIII, No 3, pp 527-530

Studies reasons for slow sprouting of this gutta-percha-producing tree. Investigates biochemical changes occurring when seeds undergo stratification, which consists of placing seeds in moist turf under conditions of low temperature and good aeration. Finds subject process produces faster sprouting. Finds removal of small amount of capsule and endosperm at root end of seed provides better supply of moisture and oxygen to the embryo and produces faster sprouting. Includes five tables and two photographs. Submitted 16 May 50 by Acad A. I. Oparin.

166T2

PECHNIKOVA, T.G., inzh., otv. za vypusk; KOZHEVNIKOVA, T.N., red.;
GOLUBEKOVA, L.A. tekhn. red.

[Bibliography of scientific and technological literature on problems of procuring and processing agricultural products by elevators, mills, and the mixed feed industry] Bibliograficheskii ukazatel' nauchno-tehnicheskoi literatury; po voprosam zagotovok i proizvodstva sel'skokhoziaistvennykh produk-tov elevatornoi, mukomol'no-krupienoi i kombikormovoi pro-myshlennosti. Moscow, Zagotizdat, 1961. 27 p.

(MIRA 15:11)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet zagotovok.
TSentral'noye byuro tekhnicheskoy informatsii.

(Bibliography--Farm produce)

(Bibliography--Automation)

(Bibliography--Construction industry)

L 12294-63

EPF(c)/EMT(m)/BDS AFFTC/APGC

Pr-4 EW/MY

S/081/63/000/005/051/075

67

64

AUTHOR:

Masagutov, R. M., Berg, G. A., Volkova, L. I., Plotnikova, L. I.,
Pechnikova, T. N., Zagryadskaya, L. M. and Mironov, A. A.

TITLE:

Combinations of preparation of raw material for catalytic cracking and obtaining of neutralized contact catalyst

PERIODICAL:

Referativnyy zhurnal, Khimiya, no. 5, 1963, 499, abstract 5P147 (Tr. Bashkirsk. n.-t. in-t. po pererabotke nefti, 1962, no. 5, 88 - 93)

TEXT:

At an experimental plant in 2 l capacity reactor in a mobile layer of bulbous aluminosilicated catalyst (KT) at 450°C volume speeds of 0.7, 1.0 and 1.5 hours⁻¹, circulation ratio (KT) 3:1 (index of activity of KT 32 - 33 points) experiments were conducted on cracking of purified (so-called "depleted") gas oils from a plant for producing neutralized contact catalyst (NChK) and extracted vacuum gas oil from a mixture of Shkapov and Romashkin petroleum. In the catalytic cracking of acid purified gas oil the extraction of coke is lower than in cracking of unrefined gas oils. Gas which forms in cracking of refined gas oil contains more propane-propylene and butane-butylene fractions and less

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Combinations of preparation

3
S/081/63/000/005/051/075

H₂S. Gasoline, extracted in cracking of refined gas oil, contains a smaller amount of S compounds and is more stable during storage. As a result of cracking of refined gas oil a 30 - 40 % fraction of diesel fuel with content of S $\leq 1\%$ is extracted. The process is economical, which is indicated by calculations conducted by one of the Urim oil refineriss. A. Nagatkina.

[Abstractor's note: Complete translation]

Card 2/2

PECHNIKOVA, V.B., uchitel' nitsa

Measuring the knowledge and independent work of grade 8-9 students.
Biol. v shkole no. 1:39-40 Ja-F '61. (MIRA 14:4)

1. Shkola rabochey molodezhi No.94, Moskva.
(Grading and marking (Students))
(Biology--Study and teaching)

PECHNIKOVA, V.N. (Kazan')

Thiamine content in the organs in different diseases. Arkh.
pat. 25 no.8230-33 *63 (MIRA 1784)

1. Iz vtoroy kafedry pediatrii (sav. -- dotsent V.N. Pechnikova)
Kazanskogo instituta usovershenstvovaniya vrachey imeni V.I.
Lenina.

PECHNIKOVA, V.N.

Masked thiamine deficiency in children in various nutritive conditions.
Pediatriia, Moskva No.5:23-27 Sept-Oct 51. (CLML 21:4)

1. Of the Clinic for Children's Diseases, Kazan' State Institute for
the Advanced Training of Physicians imeni V.I. Lenin (Director of
Clinic--Honored Worker in Science Prof. Ye.M. Lepskiy).

PECHNIKOVA, V.N., kandidat meditsinskikh nauk

Effect of certain factors on the thiamine content of human milk.
Pediatriia 39 no.6:32-35 N-D '56. (MIRA 10:2)

1. Iz kliniki detskikh bolezney Kazanskogo instituta usovershenstvovaniya vrachey (nauchnyy rukovoditel' - zasluzhennyy deyatel' nauk RSFSR prof. B.M. Lepskiy [deceased])

(MILK, HUMAN,

vitamin B₁ in (Rus))

(VITAMIN B₁, determination,
in human milk (Rus))

BILKIVTSOV, G.A.; KRASAVTSEV, N.I.; MISCHENKO, N.M.; SOLDATKIN, A.I.;
SHARIKEVICH, L.D.; Prinimali uchastniki: PROLOV, S.Ya.;
SHESTOPALOV, I.I.; PICHETIKOVA, Z.A.; STOLBUNSKIY, L.Z.;
USOV, V.T.; GLOTOV, P.L.; VOLKOVA, A.Ya.; ALDOKHINA, V.P.;
VOLOSHIN, Yu.T.; SHUMAKOV, I.S.; ZAPOROZHETS, N.P.;
SHAPOSHNIKOV, V.P.; GONCHAROVA, M.Ya.

Investigation of blast furnace smelting using natural gas.
Stal' 22 no.6:483-486 Je '62. (MIRA 16:7)

(Blast furnaces—Equipment and supplies)

PECHO, J.

New occurrence of sedimentary iron ore near Budnany. p. 116.
RUDY, Praha, Vol. 3, no. 4, Apr. 1955.

SO: Monthly List of East European Accessions, (EAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

Pecho, J. New occurrence of sedimentary iron ore near Rudnany. p. 116.

So: Monthly List of the East European Geosciences, (EHAL), LC. Vol. 1,
no: 10, Oct. 1955

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7

P-CHAG/V
S. S. and Pech, M. V. *Základy chemického litiny.*
Prague: Československá vydavatelství techn. literatury, 1958. 380 pp.
Ref. 2346. Reviewed in *Czech. Litv. 51*, 1959, 3(1959).

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7"

PECHOC V.

CZCHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application. (Part 1) Processes and Apparatuses of Chemical Technology.

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, No. 35097

Author : Pechoc, Vladimir

Inst : Not given

Title : Computation of the Volume of Liquid and of the Diameter of the Pipe Line Given the Drop in Pressure and the Roughness

Orig Pub : Chem. prumysl, 1958, 8, No 9, 471-473

Abstract : New dimensionless ratios V/V_o , d/d_o and ξ/d_o were obtained by joint conversion of the criterion Re and the friction factor, and by utilizing the degree of roughness of the pipe line walls ξ . V is the discharge of liquid in m^3/sec , d is the diameter of the pipe line in m , $V_o = f_1(v, L, I)$, $d_o = f_2(v, L, I)$, v is the kinematic viscosity of the liquid

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4-14-1

Z/009/60/000/01/032/038
E142/E235

AUTHOR: None Given

TITLE: New Books

PERIODICAL: Chemický průmysl, 1960, Nr 1, pp 38-40

ABSTRACT: The following books are reviewed:

"Examples of Chemical and Engineering Calculations I/1"
by A. Pilař, M. Ryba, Z. Volák, V. Pečoč and

I. Koropecký; published by
SNTL, Prague 1959; reviewed by J. Nývlt, VUAnCh.

"Technical Uses of Silicones" by V. Bažant, V. Chvalovský
and J. Rathouský; published by

SNTL, Prague, 1959; reviewed by J. Dvořák, Research
Institute for Macromolecular Chemistry.

"Chemical Analyses in the Polygraphic Industry" by
J. Borecký; published by

SNTL, Prague, 1959; reviewed by S. Lankas.

"Survey of Organic Chemistry" ("Précis de Chimie
Organique") by V. Grignard; published by

Masson a spol., Paris, 1958; reviewed by V. Vesely.

Card 1/2

2/009/60/000/01/032/038
E142/E235

New Books

"Macromolecular Substances" ("Hochpolymere - Herstellung, Eigenschaften und Anwendung als Kunststoffe") by K. Thinius; reviewed by V. Kameník, Research Institute for Macromolecular Chemistry.

"Chemical Diary for 1960" published by SNTL, Prague, 1959

Card 2/2

Pechonyx, Khaim Davidovich, ROKHLENKO, Mikhail Abramovich,; TSEBRENSKO,
Karl Pavlovich,; YANCHENKO, Ye. F., kand. tekhn. nauk, retsenzent.;
TREYVAS, A.B., prof., red.

[Repair of grain harvesting combines] Remont zernouborochnykh kombainov.
Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 315 p.
(MIRA 11:12)

(Combines(Agricultural machinery)--Maintenance and repair)

PECHONYY, Kh., kand.tekhn.nauk

Establishing production standards for grain combines. Tekh.
v sel'khoz. 20 no.7:36-42 Jl '60. (MIRA 13:9)
(Combines(Agricultural machinery)--Production standards)

PECHONIY, Kh., [Pechonyi, Kh.], starshiy nauchnyy sotrudnik

Establishing wage norms for harvesting corn. Mekh. sil'.hosp.
12 no.8:18-19 Ag '61. (MIRA 14:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii
i elektrifikatsii sel'skogo khozyaystva.
(Corn ('Maize'))--Harvesting)
(Agricultural wages)

PECHONIY, Kh.D. [Pechonyi, Kh.D.], kand.tekhn.nauk

Establishing wage norms for harvesting. Mekh. sili'. hosp. 12
no. 6:18-21 Je '61. (MIRA 14:5)
(Field crops--Harvesting) (Agricultural wages)

DONSKOY, S.M.; ZEMSKOV, N.Ya.; OSENOV, V.I.; POTAPOV, A.I.;
UDALIKHINA, A.S.; YAROSHUK, D.Ya.; VAYNER, M.S.; VERNYI,
Ye.A.; CHURKIN, D.I.; GERASIMOV, K.A.; ZIBRIN, D.A.;
AYKHENVAL'D, Ye.L.; KOZLOV, A.I.; BULANOV, A.G.;
OSTROVSKAYA, L.N.; TAUHES, I.S.; PETROV, Z.I.; POTEPAJOV,
V.A.; PECHONYY, A.D.; TROFIMOVA, A.S., tekhn. red.

[Development of power engineering in the Tatar A.S.S.R.]
Razvitiye energetiki Tatarskoi ASSR. Kazan', Tatarkoe knishnoe
izd-vo, 1961. 145 p.
(MIRA 15:2)

1. Tatar A.S.S.R. Sovet Narodnogo khozyaystva. Upravleniye
energeticheskoy promyshlennosti.
(Tatar A.S.S.R.--Power engineering)

PECHONYI, Kh. D.

Technology

Manual of electrical equipment of automobiles, motorcycles and tractors. Kiev, Gos, nauchnotekhn. izd-vo mashinostroit, lit-ry, 1951.

9. Monthly List of Russian Accessions, Library of Congress, June 1951. Unclassified.

TECHNICKY, KH.D

The electric equipment of Soviet automobiles: handbook for mechanics, electricians, etc.
Kiev, Gos. izd-vo tekhn. lit-ry Ukrainsk., 1950. 17" p. (50-3258)

TL272.F4

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7

PECHONYI, Kh. D. and LURACH, Lu. E.

Spravcchnik Po Elektrooborudovaniyu Avtomobile, Mototsiklov Traktorov (Manual on
Electrical Equipment and Installation on Motorcars, Motorcycles and Tractors),
183 p., Kiev and Moscow, 1951.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239810019-7"

PECHONYY, Kh. D.

"Investigation of the Fuel Economy of Gas-Cylinder Automobiles GAZ-11D and ZIS-157 Using Natural and Coke Gas." Cand Tech Sci, Leningrad Agricultural Inst., All Union Education USSR, Leningrad, 1954. MI, No 3, Jan 55)

Survey of Scientific and Technical Information Department of USSR MI, Statistical SO: Ser. No 500, 29 Jul 65

PACHONY, Kh.D.

Using gas as fuel for the purpose of increasing the fuel
economy of an automobile. Avt.trakt.prom. no.9:18-23 S '54.
(MLRA 7:10)

1. TSNIIAT USSR
(Automobiles--Engines (Compressed gas)) (Gas as fuel)

PECHONY, Kh-D.

USSR.

357. TESTS OF GASOLINE IN AUTOMOBILE ENGINES IN GAS MIXTURES TO FUEL.
Pechony, Kh. D. (Kharkov Institute from (Central Inst. TIAZ, Krasnoy), Dept.
1954, No. 23; reprinted in Engen' Muz., Dec. 1954, vol. 15, 519, 520).
Experiments are recorded on the running of a 113-120 engine and a 113-156 car
with the overall compression ratio of 6.6:1, ratios of 7.3 and 7.6, an axial
(Soviet 66 octane petrol), with and without addition of natural gas, propane,
and liquid oxygenated gases at long throttle openings. It is
recommended that air-fuel ratio should be increased to 8, when there will
be a saving of 30% in gasoline and a consumption of 12 cu m of compressed
natural gas per 100 km. Natural gas is preferred to liquified
as refueling point as account of the large time required for the latter
(10 minutes).

PECHONYY, Khaim Davidovich; MAYGUR, G.L., inzh., retsenzent; TSELUYKO,
A.S., inzh., red.; NIKIFOROVA, R.A., inzh., red.; GORNOSTAY-
POL'SKAYA, M.S., tekhn. red.

[Handbook on electric equipment for motortracks, tractors and
motorcycles] Spravochnik po elektrocaborudovaniyu avtomobilei,
traktorov, mototsiklov. 2., dop. iad. Moskva, Mashgiz, 1961.
(MIRA 14:10)
246 p.

(Motor vehicles--Electric equipment)

PECHONIY, Kh.D. [Pechonyi, Kh.D.], kand.tekhn.nauk

Establishing work norms and wages for machine operators in
transportation work. Mekh. sil'. hosp. 13 no.4:21-24 Ap
'62. (MIRA 17:3)

PECHONYY, Kh.D., inzh.; DIDENKO, N.K., inzh.

Concerning the operating efficiency of the KKH-3 harvester.
Mekh.i elek.sots.sel'khoz. 20 no.4:10-12 '62. (MIRA 15:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i
elektrifikatsii sel'skogo khozyaystva.
(Harvesting machinery)

PECHORA, Ye.: TSANTSARA, Ya.

Prospects for the use of synthetic fibers by the Polish
textile industry. Tekst.prom. 20 no.5:72-73
My '60. (MIRA 13:8)
(Poland--Textile fibers, Synthetic)

PECHORIN, A. I.

"Reduction of the Loss of Peat Deposit During the
Breaking-Through of Ditches in a Cut Field," Torf.

Prom., No. 4, 1948. Engr.

PECHORIN, A. I.

"Determining the Width of the Peat Covered Band at
the Point Where the Axes of Quarries are Broken,"

Torf. Prom., No. 2, 1949 Engr.

PECHORIN, O.

Still another advantage of aluminum drill pipes. Neftianik
7 no. 5:17 My. '62. (MIRA 15:12)

1. Glavnny geolog kontory bureniya No.3 tresta Pervomayburneft'.
(Pipe, Aluminum)

FECHORIN, O.M., SIRAL'NIK, E.Ya.

Cavitation pressure as a possible cause of the formation of cavities
in wells. Bureniye no. 3:14-7 '65. (VTPR 12:5)

J. Trest "Pervomayburnit" i Kuybyshevskiy goslittekhnicheskiy
institut im. V.V. Kugushevya.

PECHORIN, O.M.

Features of testing prospecting wells in Mangyshlak oil fields.
Neft. khoz. 42 no.8:64-68 Ag '64.
(MIRA 17:9)

PECHORIN, O.M.

Causes of water encroachment of wells during the completion period and means for preventing water outbursts. Neft. khoz. 40 no.7:68-70 J1 '62. (MIRA 17:3)

PECHORINA, A.N.

Analysis of changes in the endosperm mosaic of cereals resulting
from the injection of endosperm matter of related forms. Izv. Kar.
i Kol' fil. AN SSSR no.1:98-105 '59. (MIRA 12:9)

1. Institut biologii Karel'skogo filiala AN SSSR.
(Endosperm) (Grain)

PECHORINA, A.N.

Changes in the structure of the endosperm in new forms of wheat
produced by the injection method as compared with the original
varieties. Trudy Kar.fil.AN SSSR no.17:70-79 '59. (MIRA 13:4)
(Wheat breeding)

PECHORINA, G.S., inzhener (Riga).

New form of letter case for facet stereotype plates. Poligr. proiz. 4:10-
11 Ap '53. (MLR 6:6)
(Stereotyping)

PA 171TM7

PECHORINA, I. N. DOCENT

USSR/Electricity - Electric Motors Nov 50
Starters

"Generalized Method of Calculating Starting Resistances for Electric Motors," Docent I. N. Pechorina, Sverdlovsk

"Elektrichesvo" № 11, pp 47-50

Draws conclusions as to general relationship applicable in calculating starting resistances for any motor. Formulas calculated for concrete type of motor can be obtained from this relationship by taking into account peculiarities of mechanical characteristic of motor. Problem

171TM7

USSR/Electricity - Electric Motors (Contd) Nov 50

of calculating starting resistances of series and compound motors solved by same graphic method. Submitted 7 Oct 50.

171TM7

PECHORINA, I. N., Docent

USSR/Electricity - Motors
Starting

Dec 51

"The Calculation of the Starting Resistances of
Electric Motors," Docent I. N. Pechorina, Ural
Polytech Inst

"Elektrichestvo" No 12, pp 39, 40

For motor with curvilinear characteristics,
establishes a simple relationship between the
numerators of the geometric progression whose terms
are the resistances of the sections of the start-
ing rheostat and the coeff lambda, the ratio of

201F79

USSR/Electricity - Motors (Contd)

Dec 51

the starting current or torque to the current
or torque when the motor is connected across
the line. Submitted 14 May 51.

201F79

SOV/24-59-2-16/30

AUTHORS: Zhukov, V. N., Pechorina, I. N., Shirokov, V.P. (Sverdlovsk)

TITLE: The Effects of Cavitation on the Dynamic Response of Hydraulic Effector Mechanisms (Vliyaniye kavitatsionnykh rezhimov na dinamicheskiye kharakteristiki gidravlicheskikh ispolnitel'nykh mekhanizmov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 2, pp 104-108 (USSR)

ABSTRACT: The paper describes some tests done with a hydraulic effector mechanism coupled to an artificial load, in which the inertial and positional components can be adjusted largely independently (Fig 1). The pressure is measured with an induction transducer, and the position of the load is indicated by a potentiometer indicator. Fig 2 shows details of the cylinder and valve system used with the effector mechanism. The equations below this figure are written on the assumption that the liquid is incompressible, that the output of the pump does not depend on the pressure, and that the mass of the piston can be neglected. These equations are discussed in a general way in relation to the conditions under which cavitation bubbles can appear; the main one is that the piston somehow acquires a high speed, principally on account of the action of external forces, or of sudden

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The Effects of Cavitation on the Dynamic Response of Hydraulic Effector Mechanisms

reversal of the motion when the piston is far from the neutral position (the position in which the spring exerts no force on the piston). The last two pages of the paper show oscillograms of the pressure p and position y taken with electromagnetically controlled valves. Fig 3 shows the response to a step perturbation applied to the piston, Fig 4 the response when the current to the valves is reversed (at 8.5mA) Fig 5 the same when the current is 29 mA, and Fig 6 the same when the current is 15 mA (in the last case the initial velocity was different from zero). In all cases τ denotes the time for which the cavitation bubbles are present. The last section deals briefly with the changes in the equations to be used during the time that cavitation bubbles are present; the last equation states the condition under which cavitation will occur. The paper contains 6 figures and 3 Soviet references.

SUBMITTED: November 17, 1958.

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AUTHOR: Pecherina, I.N. \0

SOV/141-2-4-18/19

TITLE: On the Stability of Non-linear Systems of the Third Order

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
Vol 2, Nr 4, pp 664 - 665 (USSR)

ABSTRACT: If the dynamics of a controlled system is described by:

$$\frac{dx}{dt} = f_1(x) + a_{12}y + a_{13}z ;$$

$$\frac{dy}{dt} = f_2(x) + a_{22}y + a_{23}z ;$$

$$\frac{dz}{dt} = f_3(x) + a_{32}y + a_{33}z ,$$

the stability of the system can be determined by the following inequality:

$$4k_2c(x)[a(x)-k_1] - \left\{ c(x)(1+k_2)/k_1 + k_2[a(x)-k_1] \right\} k_1 - k_2 b(x) > 0$$

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E073/E335

AUTHOR: Pechorina, I.N.

TITLE: Experimental Determination of the Equivalent Complex Transfer Coefficients for Nonlinear Elements of Control Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 6, pp 995 - 997 (USSR)

ABSTRACT: A method is described of experimental determination of equivalent complex transfer coefficients of nonlinear elements by means of recording the Lissajou patterns. This method can be applied for obtaining a family of frequency characteristics in the case that the output oscillation differs considerably from a sinusoidal one. Experimental determination of the transfer coefficients permits improving the accuracy of coefficients obtained by calculation. The method requires the use of a low-frequency oscillator or generator which generates simultaneously two oscillations with a mutual phase shift of 90°. A sinusoidal emf is input to the element under investigation and the non-sinusoidal periodic output is fed to the vertical input of an oscilloscope. Either of the two emf's (which are shifted in phase by 90°) can

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produce a presentation on the oscilloscope. The scale of the presentation can be determined by displaying the emf rather than the output of the control loop. With the aid of expressions for the areas of the corresponding Lissajou figures for sine and cosine emf's, the coefficients of the Fourier expansion of the output of the control loop can be determined and hence the real and imaginary parts of the complex transfer coefficient are obtained. The circuit used is shown in Figure 3. A DC motor 1 drives a selsyn 3 via a reductor gear 2; the modulated voltage from the selsyn is fed into a phase-sensitive amplifier 4, the output of which is smoothed by means of a filter 5 and can be fed to the input of the nonlinear element 6, the characteristics of which are to be determined. An equal selsyn 3' is connected in parallel with the selsyn 3; the voltage from the single-phase winding of the selsyn 3' is fed into an amplifier 4' and a filter 5'; thus two identical channels are obtained. By rotating the rotor of the second

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E140/E135

AUTHOR: Pechorina, I.N. (Sverdlovsk)

TITLE: Stability of Automatic Control Systems with Pulse-Width Modulation

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 2, pp 116-121 (USSR)

ABSTRACT: Pulse automatic control systems employing pulse width modulation may be calculated by linear methods only for low duty cycle, i.e. for small perturbations of the regulation system. The influence of the non-linear characteristics of the pulse circuit on the stability of the control system is estimated in the article. Relations are derived, graphs and tables permit calculation of the amplitude and phase of the harmonic components at the output of the pulse system neglecting the phase shift between input and output. It is then shown that the method of harmonic balance may be used to analyse the stability of a pulse automatic regulation system with pulse-width modulation.⁸ It is found that harmonic components with indices $\nu_k \pm 1$ are of appreciably greater absolute magnitude than the remaining harmonic components.

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E041/E135

AUTHORS: Pechornia, I.N. (Docent), and Karasik, G.Ya.

TITLE: Determination of the Coefficients of Transfer Functions of Linearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient Behaviour

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, No. 9, pp 88-94

TEXT: This problem has been often studied and in particular monotonic responses yield easily to the method proposed by M.P. Simoyu (Ref.4). Oscillatory responses are more awkward and the present note introduces a convenient solution. The solution to the equation

$$W(s) = \frac{X}{as^2 + s + 1}$$

where $s = b_1 p$, $a = \omega_2/b_1^2$, is plotted in Fig. 1. The solid lines have various values of a and represent $y(\tau)$, $\tau = t/b_1$. If experimental curves are superimposed on this field, the coefficients may be found by comparison of coincident curves.

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Determination of the Coefficients of Transfer Functions of Linearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient Behaviour

Non-coincidence may of course be due to the unsuspected presence of extra derivatives on the right-hand side of the equation, as for example

$$W(p) = K \frac{c_1 p + 1}{b_2 p^2 + b_1 p + 1}$$

The coefficients b_1 , b_2 and c are found as follows. From the transient response curve the area is found between the curve and $x = K$ and divided by K . The value of t_m (at which $x(t)$ has a turning value) is found for the differential equation in x corresponding to $W(p)$. The value of the function x_m is also found at the turning point. Values of a , y_0' and τ may now be read off using the additional curves in Fig. 1. Then,

$$b_1 = t_m/\tau_m; \quad b_2 = b_1^2 a; \quad c_1 = (y_0'/b_1)b_2, \quad \text{where } \tau_m \text{ is given by}$$

$$\tau_m = \frac{1}{\alpha} \arctg \frac{\alpha}{a} \frac{y_0'}{y_0' - 2} \quad (3)$$

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Linearized Systems of Second and Third Order on the Basis of
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Experimental and typical curves are compared for $\gamma \neq 0$ and an
approximate value of a is obtained and then γ and τ_m are
determined from the graphs in Fig. 3. By comparing the latter
with known values, corrections are obtained. The appendix gives
worked examples for transient process curves, as shown in Figs. 4
and 5.

There are 5 figures and 5 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut
(Ural'sk Polytechnical Institute)

SUBMITTED: April 17, 1960

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